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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,727	08/05/2003	Frank Neri	13639-1	8865

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EXAMINER

MITCHELL, KATHERINE W

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/635,727

Applicant(s)

NERI, FRANK

Examiner

Katherine W. Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-14, 16 and 20-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-14, 16 and 20-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/5/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

1. The amendment filed 11/15/2004 has been entered.
2. The examiner reviewing this application has changed.
3. The finality of the rejection of the last Office action is withdrawn.

Allowable Subject Matter

4. The indicated allowability of claims 9-14,16,20-28 is withdrawn in view of the newly discovered reference(s) to Wollar USP 4776737, hereafter called Wollar 737 in view of Akashi et al USP 4114670, hereafter called Akashi. Rejections based on the newly cited reference(s) follow.

Claim Objections

5. Claim 10 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 10 further defines the intended use environment, not the apparatus claimed in independent claim 9.
6. Claim 9 is objected to for confusing antecedent basis. Applicant has a workpiece with first and second sides, and a section having six sides, and then refers to "the sides". While examiner can determine that "the sides" refers to the first section's sides, the wording should be corrected to clearly indicate what sides are being referred to at any/all times.

Double Patenting

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7. Claims 20-24 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 9,10,12,13,14 respectively. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Applicant requires vertices with slots 120 degrees apart in both independent claims, thus the splits are on 3 vertices of the hexagon.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 9-11,13,16,20,21,23,25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wollar 737 in view of Akashi.

Re claims 9, 20, 25, and 27: Wollar 737 teaches a threaded insert for insertion into a hole, in a workpiece with a first and second side, said insert comprising:

- A first flange 16/17/19 for being retained in workpiece (Fig 2, column 3 line 67-col 4 line 3 referring to body A)
- A hollow body (body A with shank 10 with bore 20, Fig 2, column 3 line 64-col 4 line 38 referring to body A) with axially adjacent first 22 and second 30 sections which are integrally transitioned, said sides extending axially from the proximal to distal end of the first section, the sides defining a polygon (square Fig 3 and 4),

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said first section adapted to be inserted through and retained from rotation by said hole, wherein at least 3 vertices has an axial split 18 along the respective vertex (Fig 3), said first section plastically deformable to form an enlarged portion on the second side, and

- The second section 10/30 having internal threads.

However, Wollar 37 discloses a square, not hexagonal, first section for preventing rotation in the hole, and thus has slots at 90 degrees, not 120 degrees. Wollar 737 also teaches in column 6 lines 31-65 that alternate body designs are obvious variants, and specifically notes that Body D, Figs 1720, 23-25, has 3 slots at 120 degree angles apart, but does not offer a hexagon as a disclosed shape. Akashi teaches a first section of a screw inserted in a hole in a workpiece having a hexagonal shape, which transitions integrally to a cylindrical threaded section. Akashi further teaches in column 4 lines 50-57 that a hexagonally shaped hole and neck (first) section are desirable to achieve stronger fastening and more sufficiently prevent rotation. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Wollar 737 and Akashi before him at the time the invention was made, to modify Wollar 737 as taught by Akashi to include a hexagonally shaped hole and neck (first) section of Akashi, in order to obtain improved rotation resistance and stronger fastening. One would have been motivated to make such a combination because a more secure connection would have been obtained, as taught/suggested by Akashi. The method is taught by the functionality of the apparatus, as further described in column 5 lines 1-45. The screw is

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considered the insertion tool, and since the screw can be removed without damage, it can be removed and reinserted.

Re claims 10,21: Applicant is claiming an insert, and as such, the blind second side does not further describe the insert, but the intended use. However, it is noted that Wollar 737 is capable of use with a blind sided hole, as evidenced by the title "...Blind Fastener".

Re claims 26,28: A blind side is taught in that the fastener is a blind fastener in Wollar 737 title.

Re claim 11: A round second section is shown in Wollar 737 best in column 4 lines 22-38 and Fig 24 and 10.

Re claims 13,23: Wollar 737 shows a sealing material affixed to the underside of the first flange adjacent to the first side of the workpiece in Figs 35-37 and is further described in column 6 lines 40-62 and column 2 lines 29-34.

Re claim 16: Wollar 737 Fig 3 shows a split at each vertex.

10. Claims 12,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wollar 737 in view of Akashi as applied above and further in view of Wollar USP 5078561, hereafter called Wollar 561. As discussed above, Wollar 737 in view of Akashi as applied above teach all the elements except a closed second end. Wollar 561 teaches "the terminal end 86 is enclosed and preferably semispherical in shape to shield the sharp end of screw 7 and to prevent its contact with electrical wires or with persons. If desired, the terminal end could be open." in col 5 lines 15-20. Therefore, it would have been obvious to one of ordinary skill in the art, having the

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teachings of Wollar 737 and Akashi and Wollar 561 before him at the time the invention was made, to modify Wollar 737 in view of Akashi to include closed second end of Wollar 561 as an option, in order to shield the sharp end of screw and to prevent its contact with electrical wires or with persons. One would have been motivated to make such a combination to improve safety and increase the environments the fastener could be used in.

11. Claims 14,24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wollar 737 in view of Akashi as applied above and further in view of Fox et al USP 3952656, hereafter called Fox. As discussed above, Wollar 737 in view of Akashi as applied above teach all the elements except that the seal is a polyvinyl chloride (PVC) foam. Fox teaches pvc foam as a sealant in example 6, and the abstract notes that the seal needs to prevent or minimize the flow of material from the hole, a desirable characteristic if the second side is blind and one does not want sealant running down the blind side. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Wollar 737 and Akashi and Fox before him at the time the invention was made, to modify Wollar 737 in view of Akashi as applied above to include pvc foam as the sealant, in order to use known sealant materials suited for the application. One would have been motivated to make such a combination to prevent sealant from running down the blind side, while provided good resilience and sealability, known properties of pvc foam.

Conclusion

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12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 703-305-6713. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kwm
12/14/04


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